Shell Cove Public School Mathematics Scope & Sequence Stage 2 Year 3

Term	Week	Content Area / Units	Outcomes	Assessment
1	1 and 2	**Assessment**	SENA 1 – Recording Sheet SENA 1 – Resources/Activities SENA 2 – Recording Sheet SENA 2 – Resources/Activities SENA 3 – Recording Sheet SENA 3 – Resources/Activities SENA 4 – Recording Sheet SENA 4 – Resources/Activities **For required prior knowledge refer back to Stage 1 Year 2 outcomes**	
	3 and 4	**Whole Numbers 1**	**MA2-4NA applies place value to order, read and represent numbers of up to five digits** • **Recognise, model, represent and order numbers to at least 10 000** - Represents numbers of up to four digits using objects, words, numerals and digital displays - Counts forwards and backwards by tens and hundred on and off the decade - Arranges numbers of up to four digits in ascending and descending order - States, represents and records the place value of digits in numbers of up to four digits (partitioning) - Uses the terms and symbols for 'is less than' (<) and 'is greater than' (>) to show the relationship between two numbers **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	**Term 1, Week 3 and Week 4 Program**
		Data 1	**MA2-18SP selects appropriate methods to collect data, and constructs, compares, interprets and evaluates data displays, including tables, picture graphs and column graphs** • **Identify questions or issues for categorical variables; identify data sources and plan methods of data collection and recording** - Poses questions that require data collection - Recognises possible sources of data - Identifies efficient data collection, identifies issues with collecting data - Collects data and creates a list or table to organise the data • **Collect data, organise it into categories, and create displays using lists, tables, picture graphs and simple column graphs, with and without the use of digital technologies.** **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	

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1	5 and 6	**Addition and Subtraction 1**	**MA2-5NA – uses mental and written strategies for addition and subtraction involving two-, three-, four and five-digit numbers** • **Recall addition facts for single digit numbers to develop increasingly efficient mental strategies for computation** - Adds three or more single-digit numbers - Models and applies the associative properties of addition to aid mental computation, e.g. 2 + 3 + 8 = 2 + 8 + 3 = 10 + 3 = 13 • **Apply known single-digit addition facts to mental strategies for addition and subtraction of two-, three- and four-digit numbers, including:** - The jump strategy on an empty number line (include mental strategies – bridging to the decade, doubling) **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	**Term 1, Week 5 and Week 6 Program** **Year 3 Assessment**
		Length 1	**MA2-9MG - measures, records, compares and estimates lengths, distances and perimeters in metres, centimetres and millimetres, and measures, compares and records temperatures** • **Measure, order and compare objects using familiar metric units of length** - Estimates, measures, records and compares lengths and distances using metres and centimetres • **Measure, order and compare objects using familiar metric units of length** - Estimates, measures, records and compares lengths and distances using metres and centimetres - Recognises the need for formal units smaller than centimetres to measure length - Uses millimetres as a unit to measure lengths - Estimates, measures and records millimetres using the abbreviations (mm) **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	
	7 and 8	**Multiplication and Division 1 (Focus on Multiplication)**	**MA2-6NA - uses mental and informal written strategies for multiplication and division** • **Recall multiplication facts of two, three, five and ten and related division facts** - Counts by twos, threes, fives or tens using skip counting - Uses mental strategies to recall multiplication facts for multiplies of two, three, five and ten - Relates 'doubling' to multiplication facts - Recognises and uses symbols (x) and (=) - Uses arrays to represent multiplication facts - Models and displays communicative properties of multiplication, e.g. 5 x 8 = 8 x 5	**Term 1, Week 7 and Week 8 Program**

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1		**Volume and Capacity 1**	**MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used **MA2-11MG - measures, records, compares and estimates volumes and capacities using litres, millilitres and cubic centimetres** • **Measure, order and compare objects using familiar metric units of capacity** - Recognises the need for formal units - Uses litre as a unit of measurement for volume and capacity to the nearest litre - Records using abbreviation litre (L) - Estimates capacities of containers, measure and compare two or more containers capacity. **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	
	9 and 10	**Patterns and Algebra 1**	**MA2-8NA - generalises properties of odd and even numbers, generates number patterns, and completes simple number sentences by calculating missing values** • **Describe, continue and create number patterns resulting from performing addition of subtraction** - Identifies and describes patterns when counting forwards and backwards by threes, fours, sixes, sevens, eights and nines - Models, describes and records number patterns using diagrams, words and symbols - Creates and records a variety of number patterns and describes them in more than one way **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	**Term 1, Week 9 and Week 10 Program**
		2D Space 1	**MA2-15MG manipulates, identifies and sketches two-dimensional shapes, including special quadrilaterals, and describes their features** • **Compare and describe features of two-dimensional shapes, including the special quadrilaterals** - Manipulates, compares and describes features of two-dimensional shapes, including the special quadrilaterals: parallelograms, rectangles, rhombuses, squares, trapeziums and kites - Determines the number of parallel lines in a shape - Recognises the vertices of two-dimensional shapes as the vertices of angles that have the sides of the shape as their arms - Identifies right angles in square and rectangles	

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			- Groups parallelograms, rectangles, rhombuses, squares, trapeziums and kites using one or more attribute - Identifies and describes two-dimensional shapes as 'regular' or 'irregular' **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	
	11	**Revision of Key Concepts** **Assessments**	**Based on class needs** **Notes:** Working Mathematically should be imbedded into all mathematics lesson/activities.	**Year 3 Assessment**

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2	1 and 2	**Whole Numbers 1**	**MA2-4NA applies place value to order, read and represent numbers of up to five digits** • **Recognise, model, represent and order numbers to at least 10 000** - Identifies numbers before and after a given two-,three- or four-digit number - Arranges numbers of up to four digits in ascending and descending order • **Apply place value to partitioning, rearranging and regrouping numbers to at least 10 000 to assist calculations and solving problems** - Uses place value to partition numbers of up to four digits - States the place value of digits in numbers up to four digits - Records numbers of up to four digits using place value, e.g. 5429 = 5000+400+20+9 - Uses place value to compare and explain the relative size of four-digit numbers **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	**Term 2, Week 1 and Week 2 Program**
		Time 1	**MA2-13MG – reads and records time in one-minute intervals and converts between hours, minutes and seconds** • **Tell the time to the minute** - Reads analog and digital clocks to the minute, including using the terms 'past' and 'to' - Records in words various times shown on analog and digital clocks **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas	
	3 and 4	**Fractions and Decimals 1**	**MA2-7NA – represents, models and compares commonly used fractions and decimals** • **Model and represent unit fractions, including ½, ¼, 1/3 and 1/5 and their multiples, to complete a whole** - Uses the terms 'fraction', 'denominator' and 'numerator' appropriately when referring to fractions - Models fractions with denominators of 2, 3, 4, 5 and 8 of whole objects, shapes and collections using concrete materials and diagrams - Recognises that as the number of parts that a whole is divided into becomes larger, the size of each part becomes smaller - Recognises that as the number of parts of the whole is divided into becomes larger, the size of each part becomes smaller - Interprets the denominator as the number of equal parts a whole has been divided into - Interprets the numerator as the number of equal fractional parts, e.g. 3/8 means 3 equal parts of 8 **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	**Term 2, Week 3 and Week 4 Program**

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		3D Space 1 NAPLAN	**MA2-14MG – makes, compares, sketches and names three-dimensional objects, including prisms, pyramids, cylinders, cones and spheres, and describes their features** • **Make models of three-dimensional objects and describe key features** - Identifies and names three-dimensional objects as prisms (including cubes), pyramids, cylinders, cones and spheres - Describes and compares 3 d objects; curved, flat, edges and vertices **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	
2	5 and 6	**Addition and Subtraction 1** **Mass 1**	**MA2-5NA – uses mental and written strategies for addition and subtraction involving two-, three-, four- and five-digit numbers** • **Recall subtraction facts for single digit numbers to develop increasingly efficient mental strategies for computation** - Subtracts three or more single-digit numbers • **Apply known single-digit subtraction facts to mental strategies for addition and subtraction of two-, three- and four-digit numbers, including:** - The split strategy, using place value to partition numbers (standard form) - Using patterns to extend number facts e.g. 500-200=300: 5-2=3 **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used **MA2-12MG - measures, records, compares and estimates the masses of objects using kilograms and grams** • **Measure, order and compare objects using familiar metric units of mass** - Recognises the need for formal units of measurement - Uses the kilogram as a unit of measure of mass, using a pan balance - Records masses using the abbreviation for kilograms (kg) - Estimates, measures, orders and compares objects using kilograms and the abbreviation kg • **Recognise that objects with a mass of one kilogram can be a variety of shapes and sizes** **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	**Term 2, Week 5 and Week 6 Program** **Year 3 Assessment**

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2	7 and 8	**Multiplication and Division 1 (Focus on Division)**	**MA2-6NA - uses mental and informal written strategies for multiplication and division** • **Recall multiplication facts of two, three, five and ten and related division facts** - Links multiplication and division facts using groups or arrays, e.g. 3 rows of 4 is 12, 12 shared into 3 rows is 4 - Explains why a rectangular array can be read as a division in two ways by forming vertical and horizontal groups - Applies the inverse relationship of multiplication and division to justify answers, e.g. 12 divided by 3 is 4 because 4 x 3 = 12 - Uses place value concepts • **Pose division problems and apply appropriate strategies to solve them** **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	**Term 2, Week 7 and Week 8 Program**
		Position 1	**MA2-17MG uses simple maps and grids to represent position and follow routes, including using compass directions** • **Create and interpret simple grid maps to show position and pathways** - Describes the location of an object using more than one descriptor - Uses given directions to follow routes on simple maps - Uses grid references on maps to describe position - Identifies and marks particular locations on maps and plans, given their grid references **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas	
	9	**Patterns and Algebra 1**	**MA2-8NA - generalises properties of odd and even numbers, generates number patterns, and completes simple number sentences by calculating missing values** • **Investigate the conditions required for a number to be even of odd and identify even and odd numbers** - Models even and odd numbers of up to two digits using arrays with two rows - Describes and generalises the conditions for a number to be odd or even - Identifies odd or even numbers for numbers up to four digits • **Describe, continue and create number patterns resulting from performing addition of subtraction** - Identifies and describes patterns when counting forwards and backwards by threes, fours, sixes, sevens, eights and nines FROM ANY STARTING POINT **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	**Term 2, Week 9 Program**

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		Chance 1	**MA2-19SP - describes and compares chance events in social and experimental contexts** • **Conduct chance experiments, identify and describe possible outcomes, and recognise variation in results** - Uses the term 'outcome' to describe any possible result of a chance experiment - Predicts and lists all possible outcomes - Predicts a number of times each outcome should occur in a chance experiment - Keeps tally and graph the results - Explains the differences between expected results and actual - Explains why results vary 'randomness' each time experiment is conducted **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	
2	10	**Assessment**	**This needs to be based on individual class needs** **Notes:** Working Mathematically should be imbedded into all mathematics lesson/activities.	**Year 3 Assessment**

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3	1 and 2	**Whole Numbers 1**	**MA2-4NA applies place value to order, read and represent numbers of up to five digits** • **Recognise, model, represent and order numbers to at least 10 000** - Identifies numbers before and after a given two-, three- or four-digit number - Arranges numbers of up to four digits in ascending and descending order • **Apply place value to partitioning, rearranging and regrouping numbers to at least 10 000 to assist calculations and solving problems** - Applies an understanding of place value and the role of zero to read, write and order numbers of up to four digits - Solves problems with four digits - Partitions numbers of up to four digits in non-standard forms, e.g. 3265 as 32 hundreds and 65 ones - Uses place value to partition numbers of up to four digits - States the place value of digits in numbers up to four digits • **Round numbers to the nearest ten, hundred or thousand** **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	**Term 3, Week 1 and Week 2 Program**
		Data 1	**MA2-18SP selects appropriate methods to collect data, and constructs, compares, interprets and evaluates data displays, including tables, picture graphs and column graphs** • **Collect data, organise it with categories, and create displays using lists, tables, picture graphs and simple column graphs, with and without the use of digital technologies.** - Collects data and creates a list or table to organise - Constructs vertical and horizontal column graphs and picture graphs - Uses the term horizontal axis, vertical axis and axes • **Interpret and compare data displays** - Describes and interprets information presented in simple tables, column graphs and picture graphs - Represents the same data set using more than one type of display and compare the displays **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	

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3	3 and 4	**Addition and Subtraction 1**	**MA2-5NA – uses mental and written strategies for addition and subtraction involving two-, three-, four- and five-digit numbers** • **Apply known single-digit subtraction facts to mental strategies for addition and subtraction of two-, three- and four-digit numbers, including:** - Revises jump and split strategy - Uses more than one strategy to solve addition and subtraction problems, discusses advantages • **Recognise and explain the connection between addition and subtraction** - Demonstrates how addition and subtraction are inverse operations - Explains and checks solutions to problems, including by using inverse operation - Selects, uses and records a variety of mental strategies to solve addition and subtraction problems, including word problems • **Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents** - Calculates equivalent amounts of money using different denominations - Performs simple calculations with money, including finding change, and round to the nearest five cents - Calculates mentally to give change **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	**Term 3, Week 3 and Week 4 Program**
		Position 1	**MA2-17MG uses simple maps and grids to represent position and follow routes, including using compass directions** • **Create and interpret simple grid maps to show position and pathways** - Draws and labels a grid on a given map - Draws simple maps and plans from an aerial view, with and without labelling grid - Draws and describes routes or paths on grid-reference maps and plans - Interprets simple maps found in factual texts an in the media **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas	
	5 and 6	**Patterns and Algebra 1/2**	**MA2-8NA - generalises properties of odd and even numbers, generates number patterns, and completes simple number sentences by calculating missing values** • **Describe, continue and create number patterns resulting from performing addition of subtraction** - Identifies and describes patterns when counting forwards and backwards by threes, fours, sixes, sevens, eights and nines FROM ANY STARTING POINT	**Term 3, Week 5 and Week 6 Program** **Year 3 Assessment**

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3			• **Use equivalent number sentences involving addition and subtraction to find unknown quantities** - Uses inverse operations to complete number sentences - Finds the missing number in a number sentence involving operations of addition or subtraction on both sides of the equals sign **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	
		Area 1	**MA2-10MG - measures, records, compares and estimates areas using square centimetres and square metres** • **Recognise and use formal units to measure and estimate the areas of rectangles** - Recognises the need for the square centimetre and metres as a formal unit to measure area - Estimates, compares, measures and records the areas of rectangles using square cm and square metres (m^2) **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	
	7 and 8	**Multiplication and Division 1**	**MA2-6NA - uses mental and informal written strategies for multiplication and division** • **Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies** • **Use mental strategies to multiply a one-digit number by a multiple of 10 including:** - Repeated addition, e.g. 3 x 20: 20 +20 +20 =60 - Uses place value concepts, e.g. 3 x 20: 3 x 2 tens = 6 tens = 60 - Factorising the multiple of 10, e.g. 3 x 20: 3 x 2 x 10 = 6 x 10 = 60 • **Apply inverse relationship of multiplication and division** • **Select, use and record a variety of mental strategies, and appropriate digital technologies to solve simple multiplication and division problems** - Describes, explains and compares methods used to solve simple multiplication and division problems **MA2-1WM -** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM -** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM -** checks the accuracy of a statement and explains the reasoning used	**Term 3, Week 7 and Week 8 Program**

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3		**Angles 1**	**MA2-16MG - identifies, describes, compares and classifies angles** • **Identify angles as measure of turn and compare angle sizes in everyday situations** - Identifies 'angles' with two arms in practical situations - Identifies the 'arms' and the 'vertex' of an angle - Describes informally an angle as the 'amount of turning' between two arms - Identifies 'perpendicular' lines, use the term right angle to describe the angle formed when perpendicular lines meet. - Compares angles and classify them as equal to, greater than or less than a right angle - Identifies right angles in two-dimensional shapes and three-dimensional objects **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	
	9	**Fractions and Decimal 1**	**MA2-7NA – represents, models and compares commonly used fractions and decimals** • **Model and represent unit fractions, including ½, ¼, 1/3 and 1/5 and their multiples, to complete a whole** • **Count by quarters, halves and thirds, including with mixed numerals; locate and represent these fractions on a number line** - Identifies and describes 'mixed numerals' as having a whole-number part and a fractional part - Renames 2/ 2, 3/3, 4/4, 5/5 and 8/8 as 1 - Counts by halves,thirds and quarter, e.g. 0, 1/3, 2/3, 1, 1 1/3, 1 2/3, 2… - Place halves, quarters, eighths and thirds on a number line between 0 and 1, and beyond - Compares unit fractions using diagrams and number lines and by referring to the denominator, e.g. 1/8 is less than 1/2 **MA2-1WM -** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-3WM -** checks the accuracy of a statement and explains the reasoning used	**Term 3, Week 9 and Week 10 Program**
		Volume and Capacity 1	**MA2-11MG - measures, records, compares and estimates volumes and capacities using litres, millilitres and cubic centimetres** • **Compare objects using familiar metric units of volume** - Recognises the advantages of using a cube as a unit when packing and stacking - Uses cubic centimetre as a unit of measure volumes - Constructs three-dimensional objects using cubic-centimetre blocks and count the blocks to determine volume of the objects - Measures, compares and records volumes using cubic centimetres (cm3) - Distinguishes between mass and volume, e.g. 'this stone is heavier than the ball but it takes up less space'. **MA2-1WM –** use appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-3WM -** checks the accuracy of a statement and explains the reasoning used	

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	10	**Revision** **Assessment**	**This needs to be based on individual class needs** **Notes:** 1. Working mathematically should be imbedded into all mathematics lesson/activities.	**Year 3 Assessment**

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4	1 and 2	**Whole Numbers 1 (Focus problem solving)**	**MA2-4NA applies place value to order, read and represent numbers of up to five digits** • **Recognise, model, represent and order numbers to at least 10 000** - Identifies numbers before and after a given two-, three- or four-digit number - Arranges numbers of up to four digits in ascending and descending order • **Apply place value to partitioning, rearranging and regrouping numbers to at least 10 000 to assist calculations and solving problems** - Solves problems with four digits - Uses place value to partition numbers of up to four digits - States the place value of digits in numbers up to four digits • **Round numbers to the nearest ten, hundred or thousand** **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	**Term 4, Week 1 and Week 2 Program**
		2D and 3D Space 1 (Refer/link to Angles)	**MA2-15MG manipulates, identifies and sketches two-dimensional shapes, including special quadrilaterals, and describes their features** • **Compare and describe features of two-dimensional shapes, including the special quadrilaterals** • **Identify symmetry in the environment** - Identifies lines of symmetry in pictures, artefacts, designs and the environment - Identifies and draw lines of symmetry on given shapes • **Identify right angles and perpendicular lines** **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	
		3D Space 1 (Refer/link to Angles)	**MA2-14MG – makes, compares, sketches and names three-dimensional objects, including prisms, pyramids, cylinders, cones and spheres, and describes their features** • **Make models of three-dimensional objects and describe key features** - Identifies and names three-dimensional objects as prisms (including cubes), pyramids, cylinders, cones and spheres - Describes and compares three-dimensional objects; curved, flat, edges and vertices - Uses a variety of materials to make models of three-dimensional objects - Deconstructs three-dimensional objects to make nets **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	

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4	3 and 4	**Addition and Subtraction 1 (Word Problems)**	**MA2-5NA – uses mental and written strategies for addition and subtraction involving two-, three-, four- and five-digit numbers** • **Apply known single-digit subtraction facts to mental strategies for addition and subtraction of two-, three- and four-digit numbers, including:** Revise the following strategies: - Patterns to extend number facts - Jump strategy - Split strategy - Place value - Use more than one strategy to solve addition and subtraction problems, discuss advantages. • **Recognise and explain the connection between addition and subtraction** - Demonstrates how addition and subtraction are inverse operations - Explains and checks solutions to problems, including by using inverse operation • **Select, use and record a variety of mental strategies to solve addition and subtraction problem, including word problems** **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	**Term 4, Week 3 and Week 4 Program**
		Time 1	**MA2-17MG – reads and records time in one-minute intervals and converts between hours, minutes and seconds** • **Tell the time to the minute and investigates the relationship between units of time** - Recognises the coordinated movement of the hands on an analog clock, including: - The number of minutes it takes for the minute hand to move from one numeral to the next - The number of minutes it takes for the minute hand to complete one revolution - The number of minutes it takes for the minute hand to move from the 12 to any other numeral - The number of seconds it takes for the second hand to complete one revolution - Read analog and digital clocks to the minute, including using the terms ‘past’ and ‘to’ - Records in words various times sown on analog and digital clocks **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas	

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4	5 and 6	**Multiplication and Division (1/2)**	**MA2-6NA - uses mental and informal written strategies for multiplication and division** • **Represent and solve problems involving multiplication using efficient mental and written strategies and appropriate digital technologies** - Uses mental strategies to multiply a one-digit number by a multiple of 10 including: - Repeated addition, e.g. 3 x 20: 20 +20 +20 =60 - Using place value concepts, e.g. 3 x 20: 3 x 2 tens = 6 tens = 60 - Factorising the multiple of 10, e.g. 3 x 20: 3 x 2 x 10 = 6 x 10 = 60 - Applies inverse relationships of multiplication and division • **Select, use and record a variety of mental strategies, and appropriate digital technologies to solve simple multiplication and division problems** - Describes, explains and compares methods used to solve simple multiplication and division problems • **Recall multiplication Facts up to 10 x 10 and related division facts** - Skip counts 2, 3, 4, 5, 6, 8, 10s - Finds relationships to help **MA2-1WM -** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM -** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM -** checks the accuracy of a statement and explains the reasoning used	**Term 4, Week 5 and Week 6 Program** **Year 3 Assessment**
		Mass 1	**MA2-12MG - measures, records, compares and estimates the masses of objects using kilograms and grams** • **Measure, order and compare objects using familiar metric units of mass** - Uses hefting to identify objects that have a mass of 'more than', 'less than' and 'about the same as' one kilogram - Uses the kilogram as a unit of measure of mass, using a pan balance - Records masses using the abbreviation for kilograms (kg) - Estimates, measures, orders and compares objects using kilograms and the abbreviation kg - Recognises that objects with a mass of one kilogram can be a variety of shapes and sizes **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	
	7	**Patterns and Algebra (1/2)**	**MA2-8NA - generalises properties of odd and even numbers, generates number patterns, and completes simple number sentences by calculating missing values** • **Describe, continue and create number patterns resulting from performing addition of subtraction** - Identifies and describes patterns when counting forwards and backwards by threes, fours, sixes, sevens, eights and nines FROM ANY STARTING POINT	**Term 4, Week 7 and Week 8 Program**

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4		**Chance 1**	• **Use equivalent number sentences involving addition and subtraction to find unknown quantities** - Uses inverse operations to complete number sentences - Finds the missing number in a number sentence involving operations of addition or subtraction on both sides of the equals sign **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-2WM** selects and uses appropriate mental or written strategies, or technology, to solve problems **MA2-3WM** checks the accuracy of a statement and explains the reasoning used **MA2-19SP - describes and compares chance events in social and experimental contexts** • **Conduct chance experiments, identify and describe possible outcomes, and recognise variation in results** - Uses the term 'outcome' to describe any possible result of a chance experiment - Predicts and list all possible outcomes - Predicts a number of times each outcome should occur in a chance experiment - Keeps tallies and graphs the results - Explains the differences between expected results and actual - Explains why results vary 'randomness' each time experiment is conducted **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	
	8	**Fractions and Decimals 1**	**MA2-7NA – represents, models and compares commonly used fractions and decimals** • **Model and represent unit fractions, including ½, ¼, 1/3 and 1/5 and their multiples, to complete a whole** • **Count by quarters, halves and thirds, including with mixed numerals; locate and represent these fractions on a number line** - Identifies and describes 'mixed numerals' as having a whole-number part and a fractional part - Renames 2/ 2, 3/3, 4/4, 5/5 and 8/8 as 1 - Counts by halves thirds and quarter, e.g. 0, 1/3, 2/3, 1, 1 1/3, 1 2/3, 2… - Places halves, quarters, eighths and thirds on a number line between 0 and 1, and beyond - Compares unit fractions using diagrams and number lines and by referring to the denominator, e.g. 1/8 is less than 1/2 **MA2-1WM -** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-3WM -** checks the accuracy of a statement and explains the reasoning used	**Term 4, Week 8 Program**

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		Area 1	**MA2-10MG - measures, records, compares and estimates areas using square centimetres and square metres** • **Recognise and use formal units to measure and estimate the areas of rectangles** - Recognises the need for the square centimetre and metres as a formal unit to measure area - Estimates, compares, measures and records the areas of rectangles using square cm and square metres (m^2) **MA2-1WM** uses appropriate terminology to describe, and symbols to represent, mathematical ideas **MA2-3WM** checks the accuracy of a statement and explains the reasoning used	
	9 and 10	**Revisions of Key Concepts**	**Base this on your class needs**	

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